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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,128	04/03/2001	Raymond Grant Rowe	RD-27,905/USA	1704

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EXAMINER

IP, SIKYIN

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 06/20/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

- ☒ Responsive to communication(s) filed on 3/12/02
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

- ☒ Claim(s) 1-25 is/are pending in the application.
- Of the above claim(s) 1-8 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 9-25 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

### Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

## DETAILED ACTION

### *Election/Restriction*

1. Applicant's election with traverse of Group III, claims 9-25, in Paper No. 3, received March 12, 2002 is acknowledged. The traversal is on the ground(s) that there is no serious burden to the examiner to search additional inventions. This is not found persuasive because as set forth in Paper No. 2, that the claimed inventions are classified in different classes and subclasses. The search for one Group of inventions is not required for other Groups. Furthermore, a die may be formed by different processing steps as are evident by the references of record. Thus, serious burden to examiner has been shown by different classifications.

The requirement is still deemed proper and is therefore made FINAL.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 9-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. The wording "larger" and/or "smaller" in claims 9, 14, 16, and 21 is indefinite because said wordings are relative wordings which fail to define the gamma-prime size of the particle.

5. Claim 10 is indefinite because the wording “predetermined” fails to define the novel claimed hold time. The “predetermined” condition is only applied to the conventional condition. Furthermore, the phrase “first predetermined temperature” is superfluous because the “sub-solvus temperature” is recited.

6. Claims 14, 16, and 21 are indefinite because of the wording “predetermined” for the reason as set forth in item 5 above.

### ***Claim Rejections - 35 USC § 103***

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 9-15 and 21-25 are rejected under 35 U.S.C. § 103 as being

unpatentable over USP 4702299 to Gravemann in view of USP 5328659 to Tillman et al or USP 4820356 to Blackburn et al.

10. Gravemann disclose(s) the features including the claimed application of Ni superalloy for wear-proof inserts (col. 5, lines 7-17). The difference between the reference(s) and the claims are as follows: Gravemann does not disclose the heat treatment of the Ni superalloy. However, Tillman (col. 3, line 20 to col. 4, line 7) or Blackburn (col. 2, line 30- col. 4, line 65, examples, and Tables I-IV) disclose(s) heat treatment of Ni superalloys for improving crack property at high temperature in the same field of endeavor or the analogous metallurgical art. The high temperature crack is also a problem for mold/die materials. Therefore, it would have been obvious to one having ordinary skill in the art of the cited references at the time the invention was made to heat treat Ni superalloy insert of Gravemann as taught by Tillman and Blackburn in order to improve crack property. In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233.

11. Claims 16-20 are rejected under 35 U.S.C. § 103 as being unpatentable over USP 5328659 to Tillman et al or USP 4820356 to Blackburn et al.

12. Tillman (col. 3, line 20 to col. 4, line 7) or Blackburn (col. 2, line 30- col. 4, line 65, examples, and Tables I-IV) disclose(s) heat treatment of Ni superalloys for improving crack property at high temperature in the same field of endeavor or the

analogous metallurgical art. Therefore, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the subject matter disclosed by the reference. Overlapping ranges have been held to be a prima facie case of obviousness.

See Titanium Metals Corporation of America, 227 USPQ 773 (Fed. Cir. 1985) and In re Petering, 301 F.2d 676, 133 USPQ 275 (CCPA 1962).

13. Using inert gas during heat treatment is conventional and it is contemplated within ambit of ordinary skill artisan to protect heating material from oxidized.

#### ***Conclusion***

The above rejection relies on the reference(s) for all the teachings expressed in the text(s) of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the text(s) of the reference(s). To emphasize certain aspect(s) of the prior art, only specific portion(s) of the text(s) have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since other sections of the same reference and/or various combination of the cited references may be relied on in future rejection(s) in view of amendment(s).

All recited limitations in the instant claims have been met by the rejections as set forth above.

Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See MPEP § 2163.06 (a) and 37 C.F.R. § 1.119.

#### ***Examiner Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (703) 308-2542. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

Serial No: 09/825,128


-6-

Art Unit: 1742

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (703)-308-1146.

The facsimile phone number for this Art Unit 1742 are (703) 305-3601 (Official Paper only) and (703) 305-7719 (Unofficial Paper only). When filing a FAX in Technology Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

  
\_\_\_\_\_  
SIKYIN IP  
PRIMARY EXAMINER  
ART UNIT 1742

S. Ip  
June 15, 2002